



## SEQUENCE LISTING

<140> Arradout, M. Amin  
Li, Rui  
Xiong, Jian-Ping

<120> HIGH AFFINITY INTEGRIN POLYPEPTIDES AND  
USES THEREOF

<130> 00786-804001

<140> US 09/758,493

<141> 2001-01-11

<150> US 60/221,950

<151> 2000-07-31

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<210> 1

<211> 191

<212> PRT

<213> Homo sapiens

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Cys	Pro	Gln	Glu	Asp	Ser	Asp	Ile	Ala	Phe	Leu	Ile	Asp	Gly	Ser	Gly	1	5	10	15
Ser	Ile	Ile	Pro	His	Asp	Phe	Arg	Arg	Met	Lys	Glu	Phe	Val	Ser	Thr	20	25	30	
Val	Met	Glu	Gln	Leu	Lys	Lys	Ser	Lys	Thr	Leu	Phe	Ser	Leu	Met	Gln	35	40	45	
Tyr	Ser	Glu	Glu	Phe	Arg	Ile	His	Phe	Thr	Phe	Lys	Glu	Phe	Gln	Asn	50	55	60	
Asn	Pro	Asn	Pro	Arg	Ser	Leu	Val	Lys	Pro	Ile	Thr	Gln	Leu	Leu	Gly	65	70	75	80
Arg	Thr	His	Thr	Ala	Thr	Gly	Ile	Arg	Lys	Val	Val	Arg	Glu	Leu	Phe	85	90	95	
Asn	Ile	Thr	Asn	Gly	Ala	Arg	Lys	Asn	Ala	Phe	Lys	Ile	Leu	Val	Val	100	105	110	
Ile	Thr	Asp	Gly	Glu	Lys	Phe	Gly	Asp	Pro	Leu	Gly	Tyr	Glu	Asp	Val	115	120	125	
Ile	Pro	Glu	Ala	Asp	Arg	Glu	Gly	Val	Ile	Arg	Tyr	Val	Ile	Gly	Val	130	135	140	
Gly	Asp	Ala	Phe	Arg	Ser	Glu	Lys	Ser	Arg	Gln	Glu	Leu	Asn	Thr	Ile	145	150	155	160
Ala	Ser	Lys	Pro	Pro	Arg	Asp	His	Val	Phe	Gln	Val	Asn	Asn	Phe	Glu	165	170	175	
Ala	Leu	Lys	Thr	Ile	Gln	Asn	Gln	Leu	Arg	Glu	Lys	Ile	Phe	Ala		180	185	190	

<210> 2

<211> 191

<212> PRT

<213> Homo sapiens

REF ID: A6485260

Cys 1	Pro	Arg	Gln	Glu	Gln	Asp	Ile	Val	Phe	Leu	Ile	Asp	Gly	Ser	Gly
Ser	Ile	Ser	Ser	Arg	Asn	Phe	Ala	Thr	Met	Met	Asn	Phe	Val	Arg	Ala
Val	Ile	Ser	Gln	Phe	Gln	Arg	Pro	Ser	Thr	Gln	Phe	Ser	Leu	Met	Gln
Phe	Ser	Asn	Lys	Phe	Gln	Thr	His	Phe	Thr	Phe	Glu	Glu	Phe	Arg	Arg
Thr	Ser	Asn	Pro	Leu	Ser	Leu	Leu	Ala	Ser	Val	His	Gln	Leu	Gln	Gly
Phe	Thr	Tyr	Thr	Ala	Thr	Ala	Ile	Gln	Asn	Val	Val	His	Arg	Leu	Phe
His	Ala	Ser	Tyr	Gly	Ala	Arg	Arg	Asp	Ala	Thr	Lys	Ile	Leu	Ile	Val
Ile	Thr	Asp	Gly	Lys	Lys	Glu	Gly	Asp	Ser	Leu	Asp	Tyr	Lys	Asp	Val
Ile	Pro	Met	Ala	Asp	Ala	Ala	Gly	Ile	Ile	Arg	Tyr	Ala	Ile	Gly	Val
Gly	Leu	Ala	Phe	Gln	Asn	Arg	Asn	Ser	Trp	Lys	Glu	Leu	Asn	Asp	Ile
Ala	Ser	Lys	Pro	Ser	Gln	Glu	His	Ile	Phe	Lys	Val	Glu	Asp	Phe	Asp
Ala	Leu	Lys	Asp	Ile	Gln	Asn	Gln	Leu	Lys	Glu	Lys	Ile	Phe	Ala	

<211> 191

<213> Homo sapiens

Cys 1	Pro	His	Gln	Glu	Met	Asp	Ile	Val	Phe	Leu	Ile	Asp	Gly	Ser	Gly
				5					10					15	
Ser	Ile	Asp	Gln	Asn	Asp	Phe	Asn	Gln	Met	Lys	Gly	Phe	Val	Gln	Ala
			20					25					30		
Val	Met	Gly	Gln	Phe	Glu	Gly	Thr	Asp	Thr	Leu	Phe	Ala	Leu	Met	Gln
		35					40					45			
Tyr	Ser	Asn	Leu	Leu	Lys	Ile	His	Phe	Thr	Phe	Thr	Gln	Phe	Arg	Thr
	50					55					60				
Ser	Pro	Ser	Gln	Gln	Ser	Leu	Val	Asp	Pro	Ile	Val	Gln	Leu	Lys	Gly
65					70				75					80	
Leu	Thr	Phe	Thr	Ala	Thr	Gly	Ile	Leu	Thr	Val	Val	Thr	Gln	Leu	Phe
				85				90					95		
His	His	Lys	Asn	Gly	Ala	Arg	Lys	Ser	Ala	Lys	Lys	Ile	Leu	Ile	Val
			100					105					110		
Ile	Thr	Asp	Gly	Gln	Lys	Tyr	Lys	Asp	Pro	Leu	Glu	Tyr	Ser	Asp	Val
		115					120					125			
Ile	Pro	Gln	Ala	Glu	Lys	Ala	Gly	Ile	Ile	Arg	Tyr	Ala	Ile	Gly	Val
	130					135					140				
Gly	His	Ala	Phe	Gln	Gly	Pro	Thr	Ala	Arg	Gln	Glu	Leu	Asn	Thr	Ile
145					150					155					160
Ser	Ser	Ala	Pro	Pro	Gln	Asp	His	Val	Phe	Lys	Val	Asp	Asn	Phe	Ala
				165					170					175	
Ala	Leu	Gly	Ser	Ile	Gln	Lys	Gln	Leu	Gln	Glu	Lys	Ile	Tyr	Ala	
			180					185					190		

<210> 4  
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 <212> PRT  
 <213> Homo sapiens

<400> 4  
 Cys Ile Lys Gly Asn Val Asp Leu Val Phe Leu Phe Asp Gly Ser Met  
 1 5 10 15  
 Ser Leu Gln Pro Asp Glu Phe Gln Lys Ile Leu Asp Phe Met Lys Asp  
 20 25 30  
 Val Met Lys Lys Leu Ser Asn Thr Ser Tyr Gln Phe Ala Ala Val Gln  
 35 40 45  
 Phe Ser Thr Ser Tyr Lys Thr Glu Phe Asp Phe Ser Asp Tyr Val Lys  
 50 55 60  
 Trp Lys Asp Pro Asp Ala Leu Leu Lys His Val Lys His Met Leu Leu  
 65 70 75 80  
 Leu Thr Asn Thr Phe Gly Ala Ile Asn Tyr Val Ala Thr Glu Val Phe  
 85 90 95  
 Arg Glu Glu Leu Gly Ala Arg Pro Asp Ala Thr Lys Val Leu Ile Ile  
 100 105 110  
 Ile Thr Asp Gly Glu Ala Thr Asp Ser Gly Asn Ile Asp Ala Ala Lys  
 115 120 125  
 Asp Ile Ile Arg Tyr Ile Ile Gly Ile Gly Lys His Phe Gln Thr Lys  
 130 135 140  
 Glu Ser Gln Glu Thr Leu His Lys Phe Ala Ser Lys Pro Ala Ser Glu  
 145 150 155 160  
 Phe Val Lys Ile Leu Asp Thr Phe Glu Lys Leu Lys Asp Leu Phe Thr  
 165 170 175  
 Glu Leu Gln Lys Lys Ile Tyr Val  
 180

<210> 5  
 <211> 195  
 <212> PRT  
 <213> Homo sapiens

<400> 5  
 Cys Ser Thr Gln Leu Asp Ile Val Ile Val Leu Asp Gly Ser Asn Ser  
 1 5 10 15  
 Ile Tyr Pro Trp Asp Ser Val Thr Ala Phe Leu Asn Asp Leu Leu Lys  
 20 25 30  
 Arg Met Asp Ile Gly Pro Lys Gln Thr Gln Val Gly Ile Val Gln Tyr  
 35 40 45  
 Gly Glu Asn Val Thr His Glu Phe Asn Leu Asn Lys Tyr Ser Ser Thr  
 50 55 60  
 Glu Glu Val Leu Val Ala Ala Lys Lys Ile Val Gln Arg Gly Gly Arg  
 65 70 75 80  
 Gln Thr Met Thr Ala Leu Gly Thr Asp Thr Ala Arg Lys Glu Ala Phe  
 85 90 95  
 Thr Glu Ala Arg Gly Ala Arg Arg Gly Val Lys Lys Val Met Val Ile  
 100 105 110  
 Val Thr Asp Gly Glu Ser His Asp Asn His Arg Leu Lys Lys Val Ile  
 115 120 125  
 Gln Asp Cys Glu Asp Glu Asn Ile Gln Arg Phe Ser Ile Ala Ile Leu  
 130 135 140  
 Gly Ser Tyr Asn Arg Gly Asn Leu Ser Thr Glu Lys Phe Val Glu Glu

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<210> 6
<211> 195
<212> PRT
<213> Homo sapiens
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<210> 7
<211> 195
<212> PRT
<213> Homo sapiens
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<400> 7																
Cys	Pro	Thr	Tyr	Met	Asp	Val	Val	Ile	Val	Leu	Asp	Gly	Ser	Asn	Ser	
1				5					10					15		
Ile	Tyr	Pro	Trp	Ser	Glu	Val	Gln	Thr	Phe	Leu	Arg	Arg	Leu	Val	Gly	
			20					25					30			
Lys	Leu	Phe	Ile	Asp	Pro	Glu	Gln	Ile	Gln	Val	Gly	Leu	Val	Gln	Tyr	
		35					40					45				
Gly	Glu	Ser	Pro	Val	His	Glu	Trp	Ser	Leu	Gly	Asp	Phe	Arg	Thr	Lys	
	50					55					60					
Glu	Glu	Val	Val	Arg	Ala	Ala	Lys	Asn	Leu	Ser	Arg	Arg	Glu	Gly	Arg	
65					70					75					80	

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<210> 8
<211> 193
<212> PRT
<213> Homo sapiens
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<210> 9
<211> 192
<212> PRT
<213> Homo sapiens
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<400> 9  
Glu Glu Ala Gly Thr Glu Ile Ala Ile Ile Leu Asp Gly Ser Gly Ser

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<210> 10
<211> 244
<212> PRT
<213> Homo sapiens
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Tyr 1	Pro	Val	Asp	Ile 5	Tyr	Tyr	Leu	Met	Asp 10	Leu	Ser	Tyr	Ser	Met 15	Lys
Asp	Asp	Leu	Trp 20	Ser	Ile	Gln	Asn 25	Leu	Gly	Thr	Lys	Leu	Ala 30	Thr	Gln
Met	Arg	Lys 35	Leu	Thr	Ser	Asn 40	Leu	Arg	Ile	Gly	Phe	Gly 45	Ala	Phe	Val
Asp	Lys 50	Pro	Val	Ser	Pro	Tyr 55	Met	Tyr	Ile	Ser	Pro 60	Pro	Glu	Ala	Leu
Glu 65	Asn	Pro	Cys	Tyr 70	Asp	Met	Lys	Thr	Thr	Cys 75	Leu	Pro	Met	Phe	Gly 80
Tyr	Lys	His	Val 85	Leu	Thr	Leu	Thr	Asp	Gln 90	Val	Thr	Arg	Phe 95	Asn	Glu
Glu	Val	Lys 100	Lys	Gln	Ser	Val	Ser	Arg 105	Asn	Arg	Asp	Ala 110	Pro	Glu	Gly
Gly	Phe	Asp 115	Ala	Ile	Met	Gln	Ala 120	Thr	Val	Cys	Asp 125	Glu	Lys	Ile	Gly
Trp	Arg 130	Asn	Asp	Ala	Ser	His 135	Leu	Leu	Val	Phe	Thr 140	Thr	Asp	Ala	Lys
Thr 145	His	Ile	Ala	Leu	Asp 150	Gly	Arg	Leu	Ala 155	Gly	Ile	Val	Gln	Pro	Asn 160
Asp	Gly	Gln	Cys 165	Val	Gly	Ser	Asp 170	Asn	His	Tyr	Ser 175	Ala	Ser	Thr	
Thr	Met	Asp 180	Tyr	Pro	Ser	Leu	Gly 185	Leu	Met	Thr	Glu 190	Lys	Leu	Ser	Gln
Lys	Asn 195	Ile	Asn	Leu	Ile	Phe 200	Ala	Val	Thr	Glu 205	Asn	Val	Val	Asn	Leu
Tyr	Gln	Asn	Tyr	Ser	Glu	Leu	Ile	Pro	Gly	Thr	Thr	Val	Gly	Val	Leu

<400> 12  
Tyr Pro Val Asp Leu Tyr Tyr Leu Met Asp Leu Ser Ala Ser Met Asp  
1 5 10 15  
Asp Asp Leu Asn Thr Ile Lys Glu Leu Gly Ser Arg Leu Ser Lys Glu  
20 25 30  
Met Ser Lys Leu Thr Ser Asn Phe Arg Leu Gly Phe Gly Ser Phe Val  
35 40 45

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<210> 13
<211> 240
<212> PRT
<213> Homo sapiens
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Tyr	Pro	Ile	Asp	Leu	Tyr	Tyr	Leu	Met	Asp	Leu	Ser	Tyr	Ser	Met	Lys
1				5					10					15	
Asp	Asp	Leu	Glu	Asn	Val	Lys	Ser	Leu	Gly	Thr	Asp	Leu	Met	Asn	Glu
			20					25					30		
Met	Arg	Arg	Ile	Thr	Ser	Asp	Phe	Arg	Ile	Gly	Phe	Gly	Ser	Phe	Val
		35					40					45			
Glu	Lys	Thr	Val	Met	Pro	Tyr	Ile	Ser	Thr	Thr	Pro	Ala	Lys	Leu	Arg
	50					55					60				
Asn	Pro	Cys	Thr	Ser	Glu	Gln	Asn	Cys	Thr	Thr	Pro	Phe	Ser	Tyr	Lys
65					70						75				80
Asn	Val	Leu	Ser	Leu	Thr	Asn	Lys	Gly	Glu	Val	Phe	Asn	Glu	Leu	Val
				85					90					95	
Gly	Lys	Gln	Arg	Ile	Ser	Gly	Asn	Leu	Asp	Ser	Pro	Glu	Gly	Gly	Phe
			100					105					110		
Asp	Ala	Ile	Met	Gln	Val	Ala	Val	Cys	Gly	Ser	Leu	Ile	Gly	Trp	Arg
		115					120					125			
Asn	Val	Thr	Arg	Leu	Leu	Val	Phe	Ser	Thr	Asp	Ala	Gly	Phe	His	Phe
	130					135					140				
Ala	Gly	Asp	Gly	Lys	Leu	Gly	Gly	Ile	Val	Leu	Pro	Asn	Asp	Gly	Gln
145					150					155					160
Cys	His	Leu	Glu	Asn	Asn	Met	Tyr	Thr	Met	Ser	His	Tyr	Tyr	Asp	Tyr
				165					170					175	
Pro	Ser	Ile	Ala	His	Leu	Val	Gln	Lys	Leu	Ser	Glu	Asn	Asn	Ile	Gln
			180					185					190		



Thr Ile Phe Ala Val Thr Glu Glu Phe Gln Pro Val Tyr Lys Glu Leu  
 195 200 205  
 Lys Asn Leu Ile Pro Lys Ser Ala Val Gly Thr Leu Ser Ala Asn Ser  
 210 215 220  
 Ser Asn Val Ile Gln Leu Ile Ile Asp Ala Tyr Asn Ser Leu Ser Ser  
 225 230 235 240

<210> 14  
 <211> 241  
 <212> PRT  
 <213> Homo sapiens

<400> 14  
 Tyr Pro Ile Asp Leu Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met Leu  
 1 5 10 15  
 Asp Asp Leu Arg Asn Val Lys Lys Leu Gly Gly Asp Leu Leu Arg Ala  
 20 25 30  
 Leu Asn Glu Ile Thr Glu Ser Gly Arg Ile Gly Phe Gly Ser Phe Val  
 35 40 45  
 Asp Lys Thr Val Leu Pro Phe Val Asn Thr His Pro Asp Lys Leu Arg  
 50 55 60  
 Asn Pro Cys Pro Asn Lys Glu Lys Glu Cys Gln Pro Pro Phe Ala Phe  
 65 70 75 80  
 Arg His Val Leu Lys Leu Thr Asn Asn Ser Asn Gln Phe Gln Thr Glu  
 85 90 95  
 Val Gly Lys Gln Leu Ile Ser Gly Asn Leu Asp Ala Pro Glu Gly Gly  
 100 105 110  
 Leu Asp Ala Met Met Gln Val Ala Ala Cys Pro Glu Glu Ile Gly Trp  
 115 120 125  
 Arg Asn Val Thr Arg Leu Leu Val Phe Ala Thr Asp Asp Gly Phe His  
 130 135 140  
 Phe Ala Gly Asp Gly Lys Leu Gly Ala Ile Leu Thr Pro Asn Asp Gly  
 145 150 155 160  
 Arg Cys His Leu Glu Asp Asn Leu Tyr Lys Arg Ser Asn Glu Phe Asp  
 165 170 175  
 Tyr Pro Ser Val Gly Gln Leu Ala His Lys Leu Ala Glu Asn Asn Ile  
 180 185 190  
 Gln Pro Ile Phe Ala Val Thr Ser Arg Met Val Lys Thr Tyr Glu Lys  
 195 200 205  
 Leu Thr Glu Ile Ile Pro Lys Ser Ala Val Gly Glu Leu Ser Glu Asp  
 210 215 220  
 Ser Ser Asn Val Val Gln Leu Ile Lys Asn Ala Tyr Asn Lys Leu Ser  
 225 230 235 240  
 Ser

<210> 15  
 <211> 242  
 <212> PRT  
 <213> Homo sapiens

<400> 15  
 Tyr Pro Val Asp Leu Tyr Tyr Leu Met Asp Leu Ser Tyr Ser Met Lys  
 1 5 10 15  
 Asp Asp Leu Glu Arg Val Arg Gln Leu Gly His Ala Leu Leu Val Arg  
 20 25 30  
 Leu Gln Glu Val Thr His Ser Val Arg Ile Gly Phe Gly Ser Phe Val

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<210> 16
<211> 242
<212> PRT
<213> Homo sapiens
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1				5					10					15		
Asn	Asn	Ile	Glu	Lys	Leu	Asn	Ser	Val	Gly	Asn	Asp	Leu	Ser	Arg	Lys	
			20					25					30			
Met	Ala	Phe	Phe	Ser	Arg	Asp	Phe	Arg	Leu	Gly	Phe	Gly	Ser	Tyr	Val	
		35				40						45				
Asp	Lys	Thr	Val	Ser	Pro	Tyr	Ile	Ser	Ile	His	Pro	Glu	Arg	Ile	His	
	50					55					60					
Asn	Gln	Cys	Ser	Asp	Tyr	Asn	Leu	Asp	Cys	Met	Pro	Pro	His	Gly	Tyr	
65				70					75						80	
Ile	His	Val	Leu	Ser	Leu	Thr	Glu	Asn	Ile	Thr	Glu	Phe	Glu	Lys	Ala	
			85					90						95		
Val	His	Arg	Gln	Lys	Ile	Ser	Gly	Asn	Ile	Asp	Thr	Pro	Glu	Gly	Gly	
			100					105					110			
Phe	Asp	Ala	Met	Leu	Gln	Ala	Ala	Val	Cys	Glu	Ser	His	Ile	Gly	Trp	
		115				120						125				
Arg	Lys	Glu	Ala	Lys	Arg	Leu	Leu	Leu	Val	Met	Thr	Asp	Gln	Thr	Ser	
	130					135					140					
His	Leu	Ala	Leu	Asp	Ser	Lys	Leu	Ala	Gly	Ile	Val	Val	Pro	Asn	Asp	
145				150					155						160	
Gly	Asn	Cys	His	Leu	Lys	Asn	Asn	Val	Tyr	Val	Lys	Ser	Thr	Thr	Met	
			165					170					175			
Glu	His	Pro	Ser	Leu	Gly	Gln	Leu	Ser	Glu	Lys	Leu	Ile	Asp	Asn	Asn	

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<210> 17
<211> 241
<212> PRT
<213> Homo sapiens
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<210> 18
<211> 42
<212> DNA
<213> Artificial Sequence
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<220>  
<223> mutagenic primer

